



Atty. Docket No. DP-302096 (DEL01 P-333)

19
CMT
4/27/04

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Art Unit : 2654
Examiner : Angela A. Armstrong
Applicants : Scott A. Deyoe et al.
Appln. No. : 09/483,699
Filing Date : January 14, 2000
Confirmation No. : 8714
For : SPEECH RECOGNITION WITH USER SPECIFIC
ADAPTIVE VOICE FEEDBACK

Mail Stop Appeal Brief-Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

RECEIVED

APR 21 2004

Technology Center 2600

Dear Sir:

TRANSMITTAL OF SUPPLEMENTAL APPEAL BRIEF
(PATENT APPLICATION - 37 CFR §1.192)

1. Transmitted herewith, in triplicate, is the APPELLANTS' SUPPLEMENTAL BRIEF in this application, with respect to the Request for Reinstatement of Appeal filed herewith.

2. **STATUS OF APPLICANTS**

This application is on behalf of:

☒ other than a small entity.

☐ a small entity.

A verified statement:

☐ is attached.

☐ was already filed.

3. **FEE FOR FILING APPEAL BRIEF**

Pursuant to 37 C.F.R. §1.17(c) the fee for filing a brief in support of an appeal was paid on May 9, 2003.

☐ small entity

☒ other than a small entity

Appeal Brief fee due: \$ 0.00

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4. EXTENSION OF TERM

The proceedings herein are for a patent application and the provisions of 37 CFR §1.136 apply.

(complete (a) or (b), as applicable)

(a) ___ Applicant petitions for an extension of time under 37 CFR §1.136:

| <u>Extension (months)</u> | <u>Fee for other than small entity</u> | <u>Fee for small entity</u> |
|-------------------------------|--------------------------------------------|---------------------------------|
| ___ one month | \$110.00 | \$55.00 |
| ___ two months | \$380.00 | \$190.00 |
| ___ three months | \$870.00 | \$435.00 |
| ___ four months | \$1,360.00 | \$680.00 |

FEE: \$

If an additional extension of time is required, please consider this a petition therefor.

(b) x Applicants believe that no extension of term is required. However, this conditional petition is being made to provide for the possibility that applicant has inadvertently overlooked the need for a petition and fee for extension of time.

5. TOTAL FEE DUE

The total fee due is:

Supplemental Appeal Brief fee: \$ 0.00

Extension fee (if any) \$

TOTAL FEE DUE: \$ 0.00

6. FEE PAYMENT

___ Attached is a check in the sum of \$

___ Charge Account No. 16 2463 the sum of \$_____.

A duplicate of this transmittal is attached.

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7. **FEE DEFICIENCY**

 x If any additional extension and/or fee is required, this is a request therefor
and to charge Account No. 16-2463.

and/or

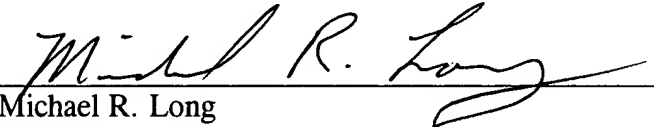
 If any additional fee for claims is required, charge Account No.
16-2463.

Respectfully submitted,

SCOTT A. DEYOE ET AL.

By: PRICE, HENEVELD, COOPER,
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04-15-04
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THE UNITED STATES PATENT AND TRADEMARK OFFICE
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APPELLANTS' SUPPLEMENTAL BRIEF (37 CFR §1.192)

This Supplemental Brief accompanies the Request for Reinstatement of Appeal. A Notice of Appeal was filed on March 11, 2003, followed by an Appeal Brief filed on May 9, 2003. The Examiner reopened prosecution of the present application. Accordingly, this Brief is a Supplemental Brief, which incorporates the Appeal Brief filed on May 9, 2003, in total, and further addresses the new issue presented by the Examiner in the final Office Action mailed January 15, 2004.

The fees required under §1.17(f), and any required petition for extension of time for filing this brief and fees therefor, are dealt with in the accompanying TRANSMITTAL OF SUPPLEMENTAL APPEAL BRIEF.

This brief is filed in triplicate. (37 CFR §1.192(a)).

This brief contains these items under the following headings, and in the order set forth below (37 CFR §1.192(c)):

- I. Real Party in Interest
- II. Related Appeals and Interferences
- III. Status of Claims
- IV. Status of Amendments
- V. Summary of Invention
- VI. Issues

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VII. Grouping of Claims

VIII. Argument

- A. U.S. Patent No. 6,144,938 issued to Surace et al.
- B. U.S. Patent No. 6,336,091 issued to Polikaitis et al.
- C. U.S. Patent No. 5,765,130 issued to Nguyen.
- D. U.S. Patent No. 6,240,347 issued to Everhart et al.
- E. Legal Considerations

IX. Conclusion

Appendix of Claims (double spaced) Involved in the Appeal

The final page of this brief bears the attorney's signature.

I. Real Party in Interest

The real party in interest in this application is Delphi Technologies, Inc.

II. Related Appeals and Interferences

Appellants are aware of no appeals or interferences that would directly affect or be directly affected by, or have a bearing on, the Board's decision in the pending appeal.

III. Status of Claims

This is an appeal from a Final Rejection of claims 1-8, 10-23, 25-40 and 42-48 of the above-identified application. Claims 9, 24 and 41 have been cancelled. Claims 6, 7, 21, 22, 38 and 39 have been objected to as being dependent upon a rejected base claim, but were indicated to be allowable if rewritten in independent form to include all of the limitations of the base claims and any intervening claims. Appealed claims 1-8, 10-23, 25-40 and 42-48 are attached in the Appendix hereto.

IV. Status of Amendments

The Amendment to the claims of June 27, 2002, has been entered in this application.

V. Summary of the Invention

A speech recognition system 100 (see Fig. 1) designed according to the present invention provides adaptive voice feedback that is appropriate for the experience level of a user (see p. 7, lns. 25-31). For example, if the user is inexperienced, the system 100 provides voice feedback at each level. However, if a user is experienced, the user can provide continuous voice input to the system 100 and the system 100 will not provide voice feedback to the user. This allows a novice user to begin immediately using the speech recognition system 100 without having to first study a user's guide. By monitoring the time since a voice input was last received (to determine whether to activate the adaptive voice feedback), the system 100 can be advantageously used with a wide range of users with different experience levels.

One embodiment of the present invention is directed to a method 400 (see Figs. 4A-4C; p. 9, ln. 10 through p. 13, ln. 17) for providing user specific adaptive voice feedback in a multi-level speech recognition driven system 100 (see Fig. 1). The method 400 includes the steps of: detecting whether a user of the speech recognition driven system has provided a voice input (steps 412, 426 and 440); determining whether a voice input is associated with a specific user that is recognized (step 406) by the speech recognition driven system 100; providing adaptive voice feedback (steps 420, 434 and 448) to the user when the user has not provided a voice input for a predetermined user specific time period (specific user profile, i.e., idle timer and pass variables, is set in step 408 and steps 414, 416 and 418; steps 428, 430 and 432; and steps 442, 444 and 446 implement this function) wherein the adaptive voice feedback is level dependent (steps 420, 434 and 448) and provides available commands for a current level; determining whether the voice input provided by the user is recognized (steps 422, 436 and 450) by the speech recognition driven system 100; and performing a speech selectable task (step 452) when the voice input provided by the user corresponds to a speech selectable task that is recognized by the speech recognition driven system 100.

Another embodiment of the present invention is directed to a speech recognition driven system 100 that implements the above-described method. By determining whether a voice input

is associated with a specific user that is recognized by the speech recognition driven system 100 it is possible to implement predetermined user specific time periods in which to provide user specific adaptive voice feedback (see p. 9, ln. 31 through p. 10, ln. 4).

VI. Issues

The issues are:

A. The first issue on appeal is whether claims 1-5, 8, 10-14, 16-20, 23 and 25-31 are patentable under 35 U.S.C. §103(a) over U.S. Patent No. 6,144,938 issued to Surace et al. in view of U.S. Patent No. 6,336,091 issued to Polikaitis et al. and in further view of U.S. Patent No. 5,765,130 issued to Nguyen.

B. The second issue on appeal is whether claims 15, 32-37, 40 and 42-48 are patentable under 35 U.S.C. §103(a) over U.S. Patent No. 6,144,938 issued to Surace et al. in view of U.S. Patent No. 6,336,091 issued to Polikaitis et al. and U.S. Patent No. 5,765,130 issued to Nguyen and in further view of U.S. Patent No. 6,240,347 issued to Everhart et al.

VII. Grouping of Claims

For purposes of this appeal, the claims are broken down into the following groups:

1. Claims 1, 8, 10-12, 15, 16, 23, 25-27, 30-32, 33, 40, 42-44, 47 and 48 stand or fall together; and
2. Claims 2-7, 13, 14, 17-22, 28, 29, 34-39, 45 and 46 stand or fall together.

VIII. Arguments

The two groups of claims identified above stand or fall separately from one another based upon different patentable features recited in the claims of each particular group. The specific reasons why the two groups of claims do not stand or fall together are because the Group I claims are generally directed to a system and method for providing adaptive voice feedback to the user when the user has not provided a voice input for a predetermined user specific time period,

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wherein the adaptive voice feedback is level dependent and provides available commands for a current level, while the Group II claims are more specifically directed to tracking the number of times in which a user has failed to respond for a predetermined user specific time period at a given level and deactivating a speech recognition driven system when the user has failed to respond for a user specific set number of the predetermined user specific time periods at the given level.

In the arguments below, brief descriptions are provided for each of the applied references, followed by Appellants' arguments as to why a *prima facie* case of obviousness of claims 1-5, 8, 10-14, 16-20, 23 and 25-31 has not been established based upon U.S. Patent No. 6,144,938 issued to Surace et al. in view of U.S. Patent No. 6,336,091 issued to Polikaitis et al. and in further view of U.S. Patent No. 5,765,130 issued to Nguyen and why a *prima facie* case of obviousness of claims 15, 32-37, 40 and 42-48 has not been established based upon U.S. Patent No. 6,144,938 issued to Surace et al. in view of U.S. Patent No. 6,336,091 issued to Polikaitis et al. and U.S. Patent No. 5,765,130 issued to Nguyen and in further view of U.S. Patent No. 6,240,347 issued to Everhart et al.

A. U.S. Patent No. 6,144,938 issued to Surace et al.

The Surace et al. patent discloses a voice user interface with personality that may be implemented within a telephone system to provide functionality and services, e.g., an email service, a news content service, a stock quote service and a voice mail service. Surace defines the term "personality," at col. 3, lns. 23-36, as "the totality of spoken language characteristics that simulate the collective character, behavioral, temperamental, emotional, and mental traits of human beings in a way that would be recognized by psychologists and social scientists as consistent and relevant to a particular personality type. For example, personality types include the following: friendly-dominant, friendly-submissive, unfriendly-dominant, and unfriendly-submissive." Thus, depending upon a specific user's preference, the Surace system can provide an appropriate personality for its voice interface.

Surace discloses utilizing a login and password to determine the identity of a particular user (see Fig. 18 and col. 22, ln. 50 through col. 23, ln. 12) such that the user can then be provided with a subscriber specific prompt, i.e., a friendly-dominant message, a friendly-submissive message, an unfriendly-dominant message and unfriendly-submissive message. The prompt provided to the user can then be lengthened or shortened based on the user's experience with the voice user interface (col. 9, lns. 13-19). The voice user interface with personality 103 receives input data signals 904 that include speech signals, which correspond to commands from a user (col. 12, lns. 45-48). The voice user interface with personality 103 outputs data signals that include voice signals, which correspond to greetings and responses to the subscriber (col. 12, ln. 66 through col. 13, ln. 1). The voice user interface may also provide a list of available commands (see col. 42, lns. 11-16, col. 43, lns. 35-44, and claims 32, 60, 69 and 97). In one embodiment, a voice user interface with personality 1002 transitions to a main state after a successful logon. The main state 1800 includes a time-out handler state 1880 for time-out situations, e.g., a user has not provided a response within a predetermined period of time (col. 22, lns. 50-60).

B. U.S. Patent No. 6,336,091 issued to Polikaitis et al.

The Polikaitis et al. patent is directed to a communication device 100 that screens speech input prior to processing the input with voice recognition technology. The device 100 includes a microprocessor 110 that is programmed to compare speech waveform parameters to determine whether an error exists in a signal format of a speech signal and, if so, instructs the user how to correct the signal format to eliminate the error. The microprocessor 110 analyzes speech signals to determine speech waveform parameters, e.g., speech energy, noise energy, start energy, end energy, and a percentage of clipped speech samples, within a speech acquisition window, i.e., a predetermined time period for receiving voice communication (col. 3, lns. 54-62). By comparing speech waveform parameters with threshold values, the microprocessor 110 provides error information to a user (e.g., speak louder, speak slower, start speaking later, finish speaking

earlier), when an error exists in the signal format. The microprocessor 110 may deactivate or halt the speech recognition process to allow a user to correct an error in speech signal format. Alternatively, the microprocessor 110 may continue processing speech and provide a warning to the user that the speech recognition output may not be correct. The speech recognition technology may be activated upon turn-on of the device 100, by a mechanical or electrical switch, or by a voice command. In one embodiment, the microprocessor 110 may lengthen a speech acquisition window in response to a user speaking over an end of a speech acquisition window (see col. 9, lns. 48-52).

C. U.S. Patent No. 5,765,130 issued to Nguyen

The Nguyen patent is directed to a barge-in detector for use in connection with a speech recognition system. The Nguyen detector detects user input to the system, even if concurrent with a system provided prompt, and allows the system to respond to the user input. According to Nguyen, the effects of prompt residue on an input line of a telephone system are removed by predicting or modeling the time-varying energy of an expected residue, during successive sampling frames over which the signal occurs, and then subtracting the residue energy from the signal on the input line. When a detection margin is reached or exceeded, a prompt-termination signal is generated to terminate a system provided prompt so that user input can be processed by the system.

D. U.S. Patent No. 6,240,347 issued to Everhart et al.

The Everhart et al. patent is directed to a voice activated system that is integrated with a display/control unit that includes dedicated and reconfigurable push buttons. When integrated within a motor vehicle, a motor vehicle occupant may control a plurality of motor vehicle accessories through voice input or manual input.

E. Legal Considerations

1. REJECTION OF GROUP I CLAIMS UNDER 35 U.S.C. §103(a)

Appellants respectfully submit that the Examiner has failed to establish *prima facie* obviousness of the claimed invention recited in claims 1, 8, 10-12, 15, 16, 23, 25-27, 30-32, 33, 40, 42-44, 47 and 48 over the teachings of Surace et al. as combined with Polikaitis et al., Nguyen and Everhart et al. Section 2143 of the latest revision of the *Manual of Patent Examining Procedures* (MPEP) states the following regarding the requirements for establishing a *prima facie* case of obviousness:

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. [emphasis added]

The teachings or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on Applicant's disclosure. *In re Vaack*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). [emphasis added]

Appellants submit that the cited combinations do not teach or suggest all the claimed features of the invention and, for at least this reason, Appellants submit that the Examiner has failed to establish a *prima facie* case of obviousness.

With respect to the combination of the Surace et al., Polikaitis et al., Nguyen and Everhart et al. patents, as applied to claims 1, 16 and 33, Appellants submit that the combination does not teach or suggest a method and/or system that provides adaptive voice feedback based upon a user specific time period. While Surace discloses providing voice feedback based on the selection by a user of a desired personality, the voice feedback is not based on a predetermined user specific time period. Further, the fact that Polikaitis discloses a predetermined time period for receiving a voice communication, i.e., a speech acquisition

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window, does not teach or suggest providing adaptive voice feedback based on a user specific time period. Additionally, the fact that Nguyen discloses a method and apparatus for performing barge-in is irrelevant to Appellants' claimed subject matter. In sum, the combination of Surace, Polikaitis, Nguyen and Everhart does not teach or suggest user specific time periods and, as such, cannot teach or suggest providing adaptive voice feedback that is provided based upon user specific time periods.

In response to Appellants' reply of October 29, 2003, the final Office Action stated, at page 8, in part, "[i]n response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references." However, this statement mischaracterized Appellants' remarks. Further, nowhere does the Office Action point out any specific passage in any of the references, where the refuted teachings (discussed further below) are present. When an Office Action asserts that a reference teaches something that it does not, Appellants are not attacking a reference individually to show nonobviousness of the combination of references by pointing out that the reference does not include the alleged teaching. If an individual reference does not, in fact, teach or suggest what is asserted, then the combination cannot teach or suggest what is asserted.

Appellants again note that Surace is directed to a voice user interface with personality (or attitude). Surace defines the term "personality," at column 3, lines 23-36, as a voice interface that can be one of friendly-dominant, friendly-submissive, unfriendly-dominant and unfriendly-submissive. Thus, depending upon a specific user's preference, the Surace system can provide an appropriate personality to interface with the user. Appellants note that while Surace provides prompts that are subscriber specific (i.e., friendly-dominant, friendly-submissive, unfriendly-dominant and unfriendly-submissive), the identity of a specific user is determined by a login and password (see Fig. 18 and col. 22, ln. 50 through col. 23, ln. 12) and not by associating a voice input with a specific user. In reply to this remark, the final Office Action stated at pages 7-8, in pertinent part, that because the Surace system provides a

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voice interface that receives voice input from a user, the login and password must be provided by voice. Assuming arguendo that this is correct, Surace still does not teach or suggest a system and/or method that provides adaptive voice feedback when a specific user has not provided voice input for a predetermined user specific time period. That is, Surace still does not disclose using a user specific time period to determine when to provide adaptive voice feedback to a specific user associated with the user specific time period. In fact, the final Office Action admitted, at pages 4 and 6, that “Surace and Polikaitis do not teach a user specific time period.”

However, the final Office Action stated, at page 4, that “Nguyen teaches implementing barge-in capabilities in a voice-response system such that frequent users of a system would not need to wait for a completed prompt for the system before being allowed to respond. Therefore, it would have been obvious to one of ordinary skill at the time of the invention to implement a user specific response time period as suggested by Nguyen, in the voice user interface system of Surace, for the purpose of allowing experienced users the capabilities of entering requests or information without waiting for a complete set of instructions.” However, Appellants submit that this rationale completely misses the point. That is, the barge-in function allows a user to truncate a system provided instruction (i.e., voice feedback), which does not teach or suggest implementing user specific time periods to determine when to provide adaptive voice feedback to a specific user. Further, Appellants specifically note that Surace discloses barge-in (see col. 7, lns. 47-61), which is irrelevant to Appellants’ claimed subject matter. None of the cited references of record, alone or in combination, teach or suggest using a user specific time period to determine when to provide adaptive voice feedback to a specific user associated with the user specific time period.

The fact that Polikaitis discloses that prior art speech recognition systems have not worked when a user does not say anything during a recognition window (col. 1, lns. 44-51) does not in combination with Surace teach or suggest Appellants’ claimed subject matter. In addition, with respect to Polikaitis, column 2, lines 46-48, deactivating or halting speech

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recognition processing so that a user may correct an error (see Fig. 4) in a speech recognition format is not the same as “deactivating a speech recognition driven system when a user has failed to respond for a user specific set number of predetermined user specific time periods at a given level.”

With specific reference again to Nguyen, the fact that Nguyen discloses a system/method for performing a barge-in function in a speech recognition system is irrelevant to Appellants’ claimed subject matter. That is, Nguyen does not teach or suggest using a user specific time period to determine when to provide adaptive voice feedback to a specific user associated with the user specific time period. As noted above, Nguyen merely discloses a system/method that allows a user to truncate (barge-in) a system provided prompt and, as such, adds nothing to Surace and Polikaitis that is relevant to Appellants’ claimed subject matter. Contrary to the assertions of the final Office Action and the Advisory Action (mailed April 1, 2004), barge-in merely allows a user to truncate voice feedback (i.e., a prompt) provided by a voice system.

The final Office Action cited Surace, Abstract and column 10, lines 21 through column 11, line 25, and, more specifically, column 10, lines 51-63, as teaching level dependent voice feedback. However, Appellants note that step 710 refers to Fig. 7, which is merely directed to a “help” routine that provides “help” (i.e., a voice output) upon a user’s request (i.e., a voice input) or need. With respect to the final Office Action statement that Surace (Abstract and col. 10, ln. 21 through col. 11, ln. 25) teaches level dependent adaptive voice feedback that provides available commands for a current level, the fact that system prompts to a user are set by a user’s preference and may be shortened as a user’s experience with the system increases does not teach or suggest providing available level dependent commands to a user. Appellants note that claims 8, 10-12, 15, 23, 25-27, 30-32, 40, 42-44, 47 and 48 depend upon allowable claims and, at least for this reason, are also allowable.

For at least the reasons discussed above, Appellants submit that claims 1, 8, 10-12, 15, 16, 23, 25-27, 30-32, 33, 40, 42-44, 47 and 48 are allowable over the teachings of Surace et al.,

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as combined with Polikaitis et al., Nguyen and Everhart et al. and, thus, the rejection of the claims under 35 U.S.C. §103(a) should be overturned.

2. REJECTION OF GROUP II CLAIMS UNDER 35 U.S.C. §103(a)

Appellants respectfully submit that the Examiner has failed to establish *prima facie* obviousness of the claimed invention recited in claims 2-7, 13, 14, 17-22, 28, 29, 34-39, 45 and 46 over the teachings of Surace et al., as combined with Polikaitis et al., Nguyen and Everhart et al.

With respect to the combination of the Surace et al., Polikaitis et al., Nguyen and Everhart et al. patents, as applied to claims 2, 17 and 34, Appellants submit that the combination does not teach or suggest a method/system that tracks the number of times in which a user has failed to respond for a predetermined user specific timer period at a given level. With reference to the cited Surace passage at column 14, lines 52-57, the cited passage merely discloses tracking the use of a specific prompt in a prompt history. This does not teach or suggest tracking the number of times in which a specific user has failed to respond for a predetermined user specific time period at a given level. With respect to the Surace passage at column 10, line 21 through column 11, line 25, the passage merely discloses lengthening or shortening a prompt provided to a user, based upon whether a particular prompt is being repeated in a same session or across sessions. In sum, Appellants agree that Surace and Polikaitis do not teach a user specific time period. However, Appellants submit that the combination of Polikaitis, Surace and Nguyen (and Everhart) also does not teach or suggest such a method/system, and submit that any assertion to the contrary must be based on impermissible hindsight, based on Appellants' disclosure. With respect to Polikaitis, column 2, lines 48-50, deactivating or halting speech recognition processing so that a user can correct an error in a speech signal format does not render obvious deactivating a speech recognition system when a user has failed to respond for a user specific set number of predetermined user specific time periods at a given level. Further, Appellants submit that the combination does

not teach or suggest a method/system that deactivates a speech recognition driven system when a user has failed to respond for a user specific set number of predetermined user specific time periods at a given level. In sum, the combination does not teach or suggest user specific time periods, nor does the combination teach or suggest different user specific time periods for different levels. Additionally, the combination does not teach or suggest deactivating a speech recognition driven system based upon a user failing to respond for a user specific set number of predetermined user specific time periods at a given level. As noted above, Surace merely discloses deactivating a system for time-out situations, e.g., where a user has not responded for a predetermined time period. Appellants note that the predetermined time period of Surace is not user specific.

With respect to the combination of the Surace et al., Polikaitis et al., Nguyen and Everhart et al. patents, as applied to claims 5, 20 and 37, Appellants submit that the combination does not teach or suggest a method/system that adjusts a predetermined user specific time period and a user specific set number of the predetermined user specific time periods as the ability of a specific user changes. Appellants note that while Surace discloses lengthening or shortening a prompt based upon a user's experience with a voice interface, this does not teach or suggest adjusting a user specific predetermined time period or adjusting a user specific set number of the predetermined user specific time periods, which control the deactivation of a speech recognition driven system.

With respect to the combination of the Surace et al., Polikaitis et al., Nguyen and Everhart et al. patents, as applied to claims 13, 28 and 45, Appellants submit that the combination does not teach or suggest a method/system with predetermined user specific time periods and user specific set number of predetermined user specific time periods that are level dependent.

With respect to the combination of the Surace et al., Polikaitis et al., Nguyen and Everhart et al. patents, as applied to claims 14, 29 and 46, Appellants submit that the combination does not teach or suggest a method/system with predetermined user specific time

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periods and a user specific set number of predetermined user specific time periods that are dialog branch dependent. Appellants note that claims 3, 4, 18, 19, 35 and 36 depend upon allowable claims and, at least for this reason, are also allowable.

In sum, Appellants submit that the combination of these references does not teach or suggest all the claimed features of the invention. For at least this reason, Appellants submit that the Examiner has failed to establish a *prima facie* case of obviousness.

For the reasons discussed above, Appellants submit that claims 2-7, 13, 14, 17-22, 28, 29, 34-39, 45 and 46 are allowable over the teachings of Surace et al., as combined with Polikaitis et al., Nguyen and Everhart et al. and, thus, the rejection of the claims under 35 U.S.C. §103(a) should also be overturned.

IX. Conclusion

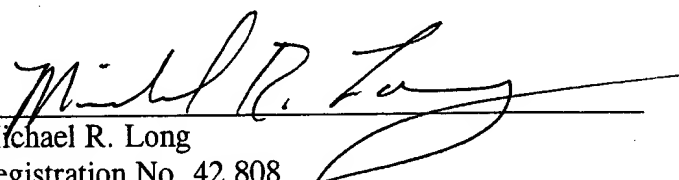
For the reasons set forth above, and as apparent from examining the invention defined by claims 1-8, 10-23, 25-40 and 42-48, when properly considering the cited references, these claims define patentable subject matter. Accordingly, reversal of the rejections of the claims under §103(a) is appropriate and is respectfully solicited.

Respectfully submitted,

SCOTT A. DEYOE ET AL.

By: PRICE, HENEVELD, COOPER,
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04-15-04
Date


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MRL/saw

Appendix of Claims (37 CFR §1.192(c)(9))

1. (Amended) A method for providing user specific adaptive voice feedback in a multi-level speech recognition driven system, comprising the steps of:

detecting whether a user of the speech recognition driven system has provided a voice input;

determining whether a voice input is associated with a specific user that is recognized by the speech recognition driven system;

providing adaptive voice feedback to the user when the user has not provided a voice input for a predetermined user specific time period, wherein the adaptive voice feedback is level dependent and provides available commands for a current level;

determining whether the voice input provided by the user is recognized by the speech recognition driven system; and

performing a speech selectable task when the voice input provided by the user corresponds to a speech selectable task that is recognized by the speech recognition driven system.

2. The method of claim 1, further including the steps of:

tracking the number of times in which the user has failed to respond for the predetermined user specific time period at a given level; and

deactivating the speech recognition driven system when the user has failed to respond for a user specific set number of the predetermined user specific time periods at the given level.

3. The method of claim 2, wherein if a voice input is not associated with a specific user the predetermined user specific time period and the user specific set number of the predetermined user specific time periods are set to default values.

4. The method of claim 2, wherein the speech recognition system utilizes voice recognition technology in determining whether a voice input is associated with a specific user.

5. The method of claim 4, wherein the predetermined user specific time period and the user specific set number of the predetermined user specific time periods are adjusted by the speech recognition driven system as the ability of a specific user changes.

6. The method of claim 5, wherein a neural network is utilized to adjust the predetermined user specific time period and the user specific set number of the predetermined user specific time periods when the ability of a specific user changes.

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7. The method of claim 5, wherein fuzzy logic is utilized to adjust the predetermined user specific time period and the user specific set number of the predetermined user specific time periods when the ability of a specific user changes.

8. The method of claim 1, further including the step of:
deactivating the speech recognition driven system when the voice input from the user is not recognized by the speech recognition driven system.

9. (Cancelled)

10. The method of claim 1, further including the step of:
activating the speech recognition driven system.

11. The method of claim 10, wherein the speech recognition driven system is switch activated.

12. The method of claim 10, wherein the speech recognition driven system is voice activated.

13. The method of claim 2, wherein the predetermined user specific time period and the user specific set number of predetermined user specific time periods are level dependent.

14. The method of claim 2, wherein the predetermined user specific time period and the user specific set number of predetermined user specific time periods are dialog branch dependent.

15. The method of claim 1, wherein the speech selectable task is performed by a motor vehicle accessory.

16. (Amended) A multi-level speech recognition driven system for providing user specific adaptive voice feedback, comprising:

a memory subsystem for storing information;

a processor coupled to the memory subsystem;

an audio input device coupled to the processor, the input device receiving a voice input from a user;

an audio output device coupled to the processor, the output device providing adaptive voice feedback to the user; and

speech recognition code for causing the processor to perform the steps of:

detecting whether a user of the speech recognition driven system has provided a voice input;

determining whether a voice input is associated with a specific user that is recognized by the speech recognition driven system;

providing adaptive voice feedback to the user when the user has not provided a voice input for a predetermined user specific time period, wherein the adaptive voice feedback is level dependent and provides available commands for a current level;

determining whether the voice input provided by the user is recognized by the speech recognition driven system; and

performing a speech selectable task when the voice input provided by the user corresponds to a speech selectable task that is recognized by the speech recognition driven system.

17. The system of claim 16, wherein the speech recognition code causes the processor to perform the additional steps of:

tracking the number of times in which the user has failed to respond for the predetermined user specific time period at a given level; and

deactivating the speech recognition driven system when the user has failed to respond for a user specific set number of the predetermined user specific time periods at the given level.

18. The system of claim 17, wherein if a voice input is not associated with a specific user the predetermined user specific time period and the user specific set number of the predetermined user specific time periods are set to default values.

19. The system of claim 17, wherein the speech recognition system utilizes voice recognition technology in determining whether a voice input is associated with a specific user.

20. The system of claim 19, wherein the predetermined user specific time period and the user specific set number of the predetermined user specific time periods are adjusted by the speech recognition driven system as the ability of a specific user changes.

21. The system of claim 20, wherein a neural network is utilized to adjust the predetermined user specific time period and the user specific set number of the predetermined user specific time periods when the ability of a specific user changes.

22. The system of claim 20, wherein fuzzy logic is utilized to adjust the predetermined user specific time period and the user specific set number of the predetermined user specific time periods when the ability of a specific user changes.

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23. The system of claim 16, wherein the speech recognition code causes the processor to perform the additional step of:

deactivating the speech recognition driven system when the voice input from the user is not recognized by the speech recognition driven system.

24. (Cancelled)

25. The system of claim 16, wherein the speech recognition code causes the processor to perform the additional step of:

activating the speech recognition driven system.

26. The system of claim 25, wherein the speech recognition driven system is switch activated.

27. The system of claim 25, wherein the speech recognition driven system is voice activated.

28. The system of claim 17, wherein the predetermined user specific time period and the user specific set number of the predetermined user specific time periods are level dependent.

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29. The system of claim 17, wherein the predetermined user specific time period and the user specific set number of predetermined user specific time periods are dialog branch dependent.

30. The system of claim 16, wherein the audio input device is a microphone.

31. The system of claim 16, wherein the audio output device is a speaker.

32. The system of claim 16, wherein the speech selectable task is performed by a motor vehicle accessory.

33. (Amended) A multi-level speech recognition driven system for controlling motor vehicle accessories that provides user specific adaptive voice feedback, comprising:

a memory subsystem for storing information;

a processor coupled to the memory subsystem;

a motor vehicle accessory coupled to the processor;

an audio input device coupled to the processor, the input device receiving a voice input from a user;

an audio output device coupled to the processor, the output device providing adaptive voice feedback to the user; and

speech recognition code for causing the processor to perform the steps of:

detecting whether a user of the speech recognition driven system has provided a voice input;

determining whether a voice input is associated with a specific user that is recognized by the speech recognition driven system;

providing adaptive voice feedback to the user when the user has not provided a voice input for a predetermined user specific time period, wherein the adaptive voice feedback is level dependent and provides available commands for a current level;

determining whether the voice input provided by the user is recognized by the speech recognition driven system; and

controlling the motor vehicle accessory according to a speech selectable task when the voice input provided by the user corresponds to a speech selectable task that is recognized by the speech recognition driven system.

34. The system of claim 33, wherein the speech recognition code causes the processor to perform the additional steps of:

tracking the number of times in which the user has failed to respond for the predetermined user specific time period at a given level; and

deactivating the speech recognition driven system when the user has failed to respond for a user specific set number of the predetermined user specific time periods at the given level.

35. The system of claim 34, wherein if a voice input is not associated with a specific user the predetermined user specific time period and the user specific set number of the predetermined user specific time periods are set to default values.

36. The system of claim 34, wherein the speech recognition system utilizes voice recognition technology in determining whether a voice input is associated with a specific user.

37. The system of claim 36, wherein the predetermined user specific time period and the user specific set number of the predetermined user specific time periods are adjusted by the speech recognition driven system as the ability of a specific user changes.

38. The system of claim 37, wherein a neural network is utilized to adjust the predetermined user specific time period and the user specific set number of the predetermined user specific time periods when the ability of a specific user changes.

39. The system of claim 37, wherein fuzzy logic is utilized to adjust the predetermined user specific time period and the user specific set number of the predetermined user specific time periods when the ability of a specific user changes.

40. The system of claim 33, wherein the speech recognition code causes the processor to perform the additional step of:

deactivating the speech recognition driven system when the voice input from the user is not recognized by the speech recognition driven system.

41. (Cancelled)

42. The system of claim 33, wherein the speech recognition code causes the processor to perform the additional step of:

activating the speech recognition driven system.

43. The system of claim 42, wherein the speech recognition driven system is switch activated.

44. The system of claim 42, wherein the speech recognition driven system is voice activated.

45. The system of claim 34, wherein the predetermined user specific time period and the user specific set number of the predetermined user specific time periods are level dependent.

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46. The system of claim 34, wherein the predetermined user specific time period and the user specific set number of predetermined user specific time periods are dialog branch dependent.

47. The system of claim 33, wherein the audio input device is a microphone.

48. The system of claim 33, wherein the audio output device is a speaker.